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PTO/SB/08B (08-00)

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT 	Application Number		10/790,959		
	Filing Date		March 1, 2004		
	First Named Inventor		Takemori TAKAYAMA		
	Group Art Unit		1742		
	Examiner Name		Deborah YEE		
Sheet 1	1	of	1	Attorney Docket Number	03733/HG

OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
04		"HEAT TREATMENT OF STEEL" (5th Edition), Edited by: The Iron and Steel Institute of Japan, Publ. Office: Maruzen Co., Ltd., March 15, 1985, pages 44 to 46 and 110.	
Examiner Signature	Deborah Yee		Date Considered
			8-14-06

* EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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DATE MAILED: August 2, 2006

*ENGLISH-LANGUAGE TRANSLATION ENCLOSED

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Application Number

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Filed

March 1, 2004

First Named Inventor

Takemori TAKAYAMA

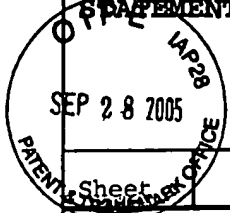
Group Art Unit

1742

Examiner Name

Deborah YEE

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**



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of

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Attorney Docket Number

03773/HG

U.S. PATENT DOCUMENTS

Exam. Inits [*]	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
D1		2004/0256029	A1	TAKAYAMA et al.	12-23-2004	
		6,413,328	B2	TAKAYAMA et al.	07-02-2002	
		6,258,179	B1	TAKAYAMA et al.	07-10-2001	
		5,725,690	A	OCHI et al.	03-10-1998	
		4,992,111		YAMADA et al.	02-12-1991	

FOREIGN PATENT DOCUMENTS

Exam Inits [*]	Cite No ¹	offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
D1		JP	8-3629	A	MURAI	01-09-1996		*
		JP	62-218542	A	NAKAJIMA et al.	09-25-1987		*
		JP	2002-180183	A	ASANO et al.	06-26-2002		*
		JP	9-111405	A	EGUCHI et al.	04-28-1997		*
		JP	2-175836	A	TODA	07-09-1990		*

Examiner Signature

Deborah Yee

Date

Considered

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DATE MAILED: SEPTEMBER 23, 2005

*ENGLISH-LANGUAGE ABSTRACT ENCLOSED

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D		BRICK et al., "Structure and Properties of Engineering Materials," Martensite Transformation in Iron-Carbon Alloys, 4th Edition, (1978), pp. 152-154.					
Examiner Signature		Deborah Yee		Date Considered		7-14-06	

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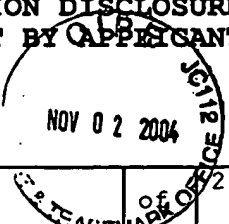
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		First Named Inventor	T. TAKAYAMA
		Group Art Unit	1742
		Examiner Name	Not Yet Assigned <i>Yel</i>
Sheet	1	Attorney Docket Number	03773/LH

U.S. PATENT DOCUMENTS

Exam. Inits ¹	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
<i>DY</i>	A	2004/0035499	A1	TAKAYAMA et al.	02-26-2004	

FOREIGN PATENT DOCUMENTS

Exam Inits ¹	Cite No ¹	Offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
<i>DY</i> ↓	B	JP	03-061348	A	KOMATSU LTD.	03-18-1991		X*
	C	JP	08-073929	A	KOMATSU LTD.	03-19-1996		X*
	D	JP	08-104924	A	KOMATSU LTD.	04-23-1996		X*
	E	JP	2004-076125	A	KOMATSU LTD.	03-11-2004		X*

*English Language Abstract only

Examiner Signature	<i>Deborah Yel</i>	Date Considered	7-14-06
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				Group Art Unit	
				Examiner Name	Not Yet Assigned
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OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
D.Y.	F	Related U.S. Patent Application Serial No. 10/790,931, filed March 1, 2004; Inventor: T. TAKAYAMA et al.; Title: ROLLING ELEMENT AND METHOD OF PRODUCING THE SAME.			
	G	"HEAT TREATMENT OF STEEL" (5 TH Edition) Edited by: The Iron and Steel Institute of Japan, Publ. Office: Maruzen Co., Ltd., March 15, 1985			
Examiner Signature	Deborah Hill			Date Considered	7-14-06

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				Group Art Unit	1742
				Examiner Name	Deborah YEE
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U.S. PATENT DOCUMENTS

Exam. Inits*	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
D-1 C-1 G-1 G-2 G-3		2005/0247377 11/154,418	A1	TAKAYAMA et al.	11-20-2005	
		2005/0241734 10/391,732	A1	TAKAYAMA et al.	11-3-2005	
		5,725,690	A	OCHI et al.	3-10-1998	
		4,992,111		YAMADA et al.	2-12-1991	
		2004/0047757 10/391,732	A1	TAKAYAMA	3-11-2004	

FOREIGN PATENT DOCUMENTS

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Examiner Signature		Debbre Yee			Date Considered	7-14-06		

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				Filing Date		Herewith
				First Named Inventor		TAKAYAMA
				Group Art Unit		1742
				Examiner Name		Yee
Sheet	1	of	2	Attorney Docket Number		04005/LH

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

Exam. Inits. ¹	Cite No. ¹	offc. ¹	Document Number ⁴	Kind Code ³	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
07		JP	61-009555	A	TAKAYAMA ET AL	01-17-1986		X*
		JP	64-004459	A	ITABE ET AL	01-09-1989		X*
		JP	10-176219	A	TAKAYAMA ET AL	06-30-1998		X*
		JP	11-117059	A	TAKAYAMA ET AL	04-27-1999		X*
		JP	11-222627	A	TAKAYAMA ET AL	08-17-1999		X*
		JP	2000-204464	A	HAMASAKA ET AL	07-25-2000		X*
		JP	2003-027181	A	TAKAYAMA ET AL	01-29-2003		X*
		JP	2003-328078	A	TAKAYAMA	11-19-2002		X*
			*English abstract attached.					

Examiner Signature	Deborah Yee	Date Considered	7-14-02
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		First Named Inventor		TAKAYAMA	
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PY		K. KOMINE et al; ON RELATIONSHIP BETWEEN HALF VALUE BREADTH AND HARDNESS OF QUENCHED- TEMPERED STEELS ; Materials Vol. 26, No.280, P26 issued by Society of Materials, Japan, pp. 24-30. <i>January 15, 1977</i>			
Examiner Signature	Deborah Lee			Date Considered	7-14-06

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